

CLAIM AMENDMENTS

Claims 1-132 (canceled).

133. (Currently Amended) A method of producing one or more collinear beams of electromagnetic energy, comprising:

[a] producing two or more ~~a plurality~~ of separate beams of electromagnetic energy from substantially an entire source beam of electromagnetic energy having ~~a randomly changing orientations of a chosen component of electromagnetic wave field vectors~~, each of the separate beams of electromagnetic energy having the same selected predetermined orientation of a chosen component of electromagnetic wave field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of electromagnetic energy;

[b] prior to step [c], adjusting at least one of the two or more separate beams of electromagnetic energy by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;

[bc] altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[ed] combining the more than two altered separate beams of electromagnetic energy into a single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy ~~and without~~

~~previously subcombining any plurality of the altered separate beams of electromagnetic energy;~~

[de] resolving from the single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors are different from one another; and

[ef] passing one of the resolved beams to a projection means, the projection means receiving only electromagnetic energy having substantially the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

134. (Original) A method as described in claim 133 wherein step

[a] includes producing each separate beam of electromagnetic energy further having a rectangular cross sectional area.

135. (Canceled).

136. (Original) A method as described in claim 133 further comprising the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

137. (Original) A method as described in claim 136 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

138. (Original) A method as described in claim 136 wherein the step of adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes adjusting the magnitude of at least one of the separate beams of electromagnetic energy.

139. (Currently Amended) A method of producing one or more collinear beams of light, comprising:

[a] producing two or more a plurality of separate beams of light from substantially an entire source beam of light having a randomly changing orientations of a chosen component of electric field vectors, each of the separate beams of light having the same selected predetermined orientation of a chosen component of electric field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of light;

[b] prior to step [c], adjusting at least one of the two or more separate beams of light by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;

[bc] altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing each of the separate beams of light through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[ed] combining the more than two altered separate beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light and without previously subcombining any plurality of the altered separate beams of light;

[de] resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another;
and

[ef] passing one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

140. (Original) A method as described in claim 139 wherein step [a] includes producing each separate beam of light further having a rectangular cross sectional area.

141. (Canceled).

142. (Original) A method as described in claim 139 further comprising the step of adjusting the light spectrum of at least one of the separate beams of light.

143. (Original) A method as described in claim 142 wherein the step of adjusting the light spectrum of at least one of the separate beams of light includes adjusting a predetermined range of wavelengths of at least one of the separate beams of light.

144. (Original) A method as described in claim 142 wherein the step of adjusting the light spectrum of at least one of the separate beams of light includes adjusting the magnitude of at least one of the separate beams of light.

145. (Currently Amended) A system of producing one or more collinear beams of electromagnetic energy, comprising:

[a] means for producing two or more ~~a plurality of~~ separate beams of electromagnetic energy ~~from substantially an entire source beam of electromagnetic energy having a randomly changing orientations of a chosen component of electromagnetic wave field vectors~~, each of the separate beams of electromagnetic energy having a same selected predetermined orientation of a chosen component of electromagnetic wave field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of electromagnetic energy;

[b] prior to [c], means for adjusting at least one of the two or more separate beams of electromagnetic energy by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;

[bc] means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy by passing each of the separate beams of electromagnetic energy through a respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors;

[ed] means for combining ~~the more than two~~ altered separate beams of electromagnetic energy into a single collinear beam of electromagnetic energy without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy ~~and without previously subcombining any plurality of the altered separate beams of electromagnetic energy;~~

[de] means for resolving from the single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electromagnetic wave field vectors are different from one another; and

[ef] means for passing one of the resolved beams to a projection means, the projection means receiving only electromagnetic energy having substantially the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors.

146. (Original) A system as described in claim 145 in which the means for providing two or more separate beams of electromagnetic energy includes means for

producing each separate beam of electromagnetic energy having a rectangular cross sectional area.

147. (Canceled).

148. (Original) A system as described in claim 145 further comprising means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy.

149. (Original) A system as described in claim 148 in which the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy.

150. (Original) A system as described in claim 148 in which the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes means for adjusting a magnitude of at least one of the separate beams of electromagnetic energy.

151. (Currently Amended) A system of producing one or more collinear beams of light, comprising:

[a] means for producing two or more a plurality of separate beams of light from substantially ~~an entire source beam of electromagnetic energy having a randomly changing orientations of a chosen component of electromagnetic wave field vectors~~, each of the separate beams of light having a same selected predetermined orientation of a chosen component of electric field vectors substantially across each beam, a predetermined range of wavelengths and a substantially uniform flux intensity substantially across the beam of light;

[b] prior to [c], means for adjusting at least one of the two or more separate beams of light by removing at least a predetermined portion of electromagnetic energy from said at least one beam at a beam stop;

[b_c] means for altering the selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each of the separate beams of light by passing each of the separate beams of light through a

respective one of a plurality of altering means in a single direction whereby the selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as each of the separate beams of light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electric field vectors;

[ed] means for combining ~~the more than two~~ altered separate beams of light into a single collinear beam of light without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beams of light ~~and without previously subcombining any plurality of the altered separate beams of light~~;

[de] means for resolving from the single collinear beam of light a first resolved beam of light having substantially a first selected predetermined orientation of a chosen component of electric field vectors and a second resolved beam of light having substantially a second selected predetermined orientation of a chosen component of electric field vectors, whereby the first and second selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and

[ef] means for passing one of the resolved beams to a projection means, the projection means receiving only light having substantially the same selected predetermined orientation of the chosen component of the electric field vectors.

152. (Original) A system as described in claim 151 in which the means for producing two or more separate beams of light includes means for producing each separate beam of light having a rectangular cross sectional area.

153. (Canceled).

154. (Original) A system as described in claim 151 further comprising means for adjusting the light spectrum of at least one of the separate beams of light.

155. (Original) A system as described in claim 154 in which the means for adjusting the light spectrum of at least one of the separate beams of light includes

means for adjusting a predetermined range of wavelengths of at least one of the separate beams of light.

156. (Original) A system as described in claim 154 in which the means for adjusting the light spectrum of at least one of the separate beams of light includes means for adjusting the magnitude of at least one of the separate beams of light.

Claims 157-438 (Canceled).